Nez Perce National Forest

2005-2012 Monitoring Report

Wildlife

Item No. 1e: Acres of big-game habitat improvements

Item No. 10: Population trends of indicator species (Pileated Woodpecker, Northern Goshawk, Bald Eagle, Peregrine Falcon, Elk, Moose, Bighorn Sheep, American Marten, Grizzly Bear, Gray Wolf, and Fisher)

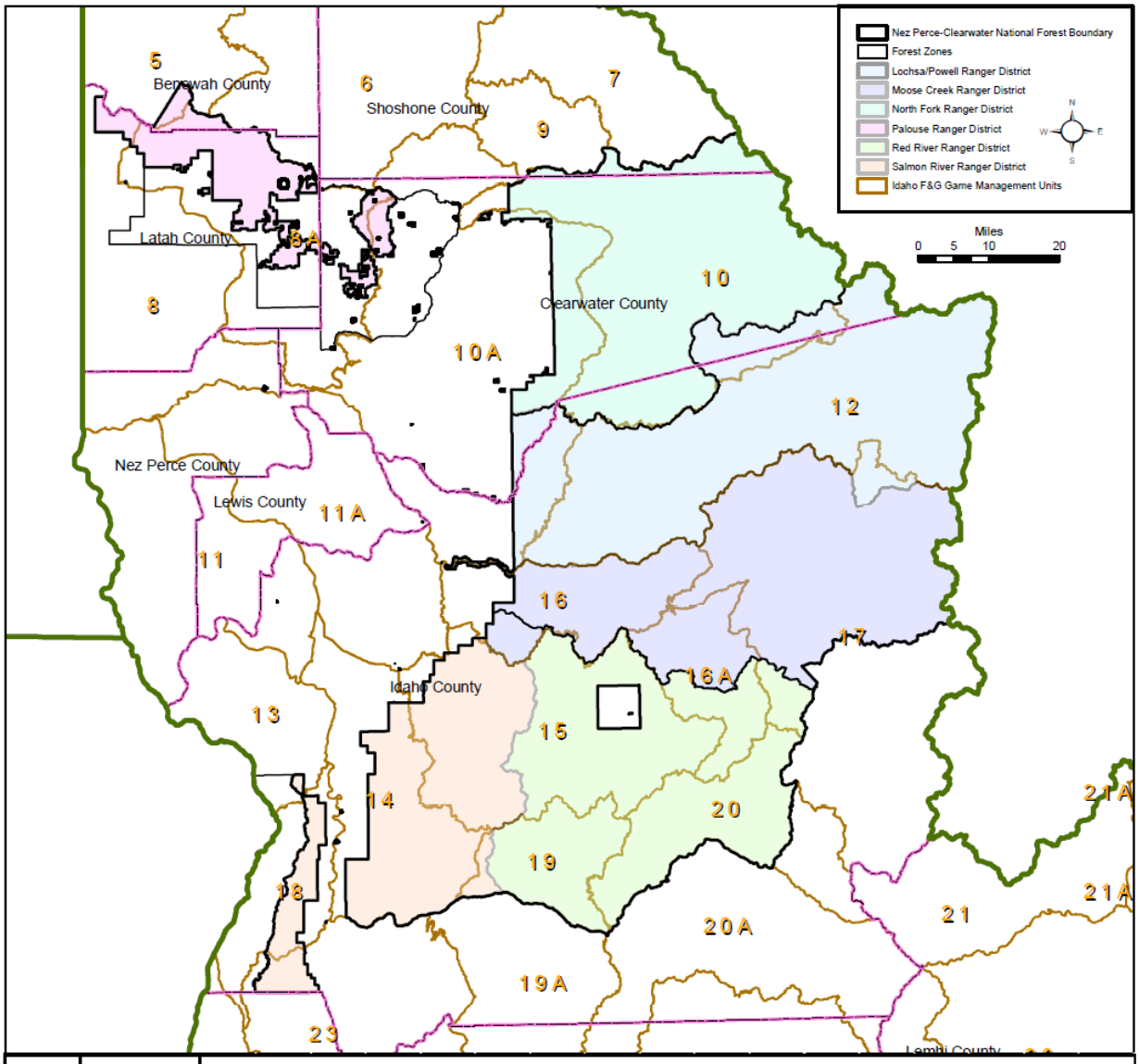
Acres of big-game habitat improvements and Elk

Idaho Department of Fish and Game (IDFG) manages elk populations and harvest levels. The Forest works with IDFG to meet habitat objectives to sustain the population objectives set by the state. IDFG divides the state into Regions, and Elk Management Zones, which are Game Management Units (GMU) that have been grouped into zones. The Nez Perce National Forest (NPNF) is in Region 2, the Clearwater Region. Figure 1 shows the GMUs and what proportion of each is within Forest boundaries. Elk populations are monitored by IDFG with winter aerial surveys in most Elk Management Zones every 3-5 years. Harvest and antler point class in the harvest are monitored as well. The following Elk Management Zones are partially within the Forest: Elk City, Hells Canyon, and Selway.

IDFG issues a yearly Progress Report containing the results of elk surveys and inventories by Elk Management Zone. Also included in the report are climatic conditions, management objectives, historical perspectives, habitat, biological, inter-specific, and predation issues, and more. These reports can be found at fishandgame.idaho.gov.

Currently, the Elk City and Hells Canyon Management Zones are meeting or exceeding population objectives, and the Selway Management Zone is below population objectives.

Figure 1: IDFG Game Management Units on the Nez Perce National Forest



Zone	Ranger District	Game Management Unit																	
		5	8	8A	10	10A	11A	12	13	14	15	16	16A	17	18	19	20	23
North	North Fork		159		667,811	107,212		2,365										
	Palouse	9,552	14,354	166,613		15,631												
	North Zone Totals	9,552	14,513	166,613	667,811	122,843	0	2,365	0	0	0	0	0	0	0	0	0	0
Central	Lochsa/Powell				74,953	90,143		758,200				2,406		25,377				
	Moose Creek					43		268			1,274	195,619	99,676	525,315				
	Central Zone Totals	0	0	0	74,953	90,186	0	758,468	0	0	1,274	198,025	99,676	550,692	0	0	0	0
South	Red River										296,541	535	79,146	31,278		149,869	223,835	
	Salmon River						140		2,602	220,856	217,693	384			50,994	15,321		24,470
	South Zone Totals	0	0	0	0	0	140	0	2,602	220,856	514,234	919	79,146	31,278	50,994	165,190	223,835	24,470
Total GMU Acreage		457,033	489,877	467,629	758,535	995,159	528,095	761,000	220,327	367,020	560,752	248,323	178,822	970,662	180,628	165,236	303,068	476,231
GMU Acreage Within Forest		9,552	14,513	166,613	742,764	213,029	140	760,833	2,602	220,856	515,508	198,944	178,822	581,970	50,994	165,190	223,835	24,470
% of GMU Acreage Within Forest		2%	3%	36%	98%	21%	0%	100%	1%	60%	92%	80%	100%	60%	28%	100%	74%	5%

Timber harvest, prescribed fire, and wildland fire create early successional habitat which can increase elk habitat potential (Lyon and Jensen 1980, Collins and Urness 1983, Leege 1979, Merrill and Peek 1982, DeByle et al. 1989, Jourdonnais and Bedunah 1990, Sachro et al. 2005). Road closures or decommissioning have significant potential to benefit elk through improving elk security (Christensen et al. 1993, Rowland et al. 2005.). Elk forage can also be improved through spraying for invasive weeds and riparian habitat restoration. Table 1 lists the acres of elk habitat improved by timber harvest, prescribed and wildland fire. Miles of roads decommissioned and acres of invasive weed treatment are found in other sections of this report.

Table 1: Nez Perce National Forest timber harvest, prescribed fire, and wildland fire acres from 2005-2012

Year	Regeneration Timber Harvest Acres	Prescribed Fire Acres	Wildland Fire Acres	Total Acres
2005	194	4,039	10,924	15,157
2006	249	4,941	24,968	30,158
2007	407	3,910	153,379	157,696
2008	185	3,236	3,043	6,464
2009	474	2,091	1,449	4,014
2010	344	1,105	900	2,349
2011	414	147	15,616	16,177
2012	0	437	176,840	177,277
Total Acres	2,267	19,906	387,119	409,292
Average	283 acres per year	2,488 acres per year	48,390 acres per year	51,162 acres per year

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Pileated Woodpecker

The United States Geological Survey (USGS) Patuxent Wildlife Research Center presents population change information from the North American Breeding Bird Survey (BBS) for more than 400 species of North American Birds (Sauer et al. 2014). The trend for pileated woodpeckers from 1966 to 2011 and from 1966 to 2012 for the state of Idaho is slightly declining. The trend estimate for 2005 to 2012 is stable.

Landbird surveys are conducted on the Forest by the Intermountain Bird Observatory as part of the Integrated Monitoring in Bird Conservation Regions (IMBCR) program coordinated by Rocky Mountain Bird Observatory (RMBO) and partners. Fifteen transects are surveyed yearly on the NPNF beginning in 2010, providing estimates of pileated woodpecker occupancy (White et al. 2013).

Additionally, a study of the distribution and area of occupancy of pileated woodpeckers was conducted in 2012 in the Clearwater and Nez Perce NFs within the Selway-Middle Fork Clearwater Collaborative Forest Landscape Restoration project area. Pileated woodpeckers were found to be well distributed throughout the area (Baumgardt et al. 2014). Of a total of 35 units sampled, pileated woodpeckers were detected in 26 units, which lead to a corrected estimated occupancy of 70% (Baumgardt et al. 2014). Pileated woodpecker surveys were completed in 2005 on Telephone Ridge, with 3 detections, and on Green Creek Point, with 5 detections.

A habitat relationship model was developed by the Region 1 Forest Service for a conservation assessment for the pileated woodpecker and 3 other species in 2005, and amended in 2006 and 2008 (USDA Forest Service 2005, amended 2006, Bush and Lundberg 2008). Habitat estimates were derived from FIA data (The U.S. Forest Service's Forest Inventory and Analysis National Program for data

collection on the health of forests) (Berglund et al. 2008, Bush et al. 2006), using these models. The model indicates that the NPNF has approximately 299,667 acres of nesting habitat, and 444,789 acres of foraging habitat well distributed to support pileated woodpeckers (Bush and Lundberg 2008).

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Northern Goshawk

The United States Geological Survey (USGS) Patuxent Wildlife Research Center presents population change information from the North American Breeding Bird Survey (BBS) for more than 400 species of North American Birds (Sauer et al. 2014). The trend for northern goshawk from 1966 to 2011 and from 1966 to 2012 is slightly declining. The trend estimate for 2005 to 2012 is also slightly declining. However, the sample size for northern goshawks in these surveys is small, so these results are not necessarily conclusive.

Habitat relationship models were developed by the Region 1 Forest Service for a conservation assessment for the northern goshawk , black-backed woodpecker, Flammulated owl, and pileated

woodpecker in 2005, and amended in 2006 and 2008 (USDA Forest Service 2005, amended 2006, Bush and Lundberg 2008). Habitat estimates were derived from FIA data (The U.S. Forest Service's Forest Inventory and Analysis National Program for data collection on the health of forests) (Berglund et al. 2008, Bush et al.2006), using these models The model indicates that the NPNF has approximately 47,117 acres of nesting habitat, and 682,261 acres of foraging habitat well distributed to support northern goshawk (Bush and Lundberg 2008).

A 2005 survey of the frequency of northern goshawk presence in the Northern region found that based on a random sample (n=114) of 12,350 sampling units, goshawks were detected in 39% of available habitat in road-accessible areas in Region 1 (Kowalski 2005, Brewer et al. 2009). The results suggest that goshawks are relatively common and widely distributed in the roaded, managed portions of National Forest lands. In 2001 to 2003 Moser studied northern goshawk reproduction on 21 territories on the Forest (Moser 2007, Moser and Garton 2009).

Also in 2005, IDFG was contracted to survey known historic nest sites. Using historic data provided by the Nez Perce National Forest 12 probable individual goshawk territories were identified. During the May 30th to June 24th field season, 10 of the 12 probable territories were sampled. Active responses from goshawks were heard at 5 of the 10 territories visited. Each territory with a goshawk response was searched for nests for ≥2 person days. No conclusively active goshawk nests were found, but the territorial and defensive nature of the goshawks responses implies that at least 5 territories were active (Sauder 2005).

In addition, field inventory work for goshawks has occurred periodically across the Forest from 2005 to 2012 in various drainages. Individual goshawks as well as nests have been found throughout the Forest.

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Bald Eagle

The Nez Perce National Forest Plan (1987) lists the bald eagle as endangered, and a Management Indicator Species. In 1995 the U.S. Fish and Wildlife Service down listed the bald eagle to threatened, and on June 28, 2007 the final decision was made to delist the bald eagle from the Endangered Species Act (USFWS 2007). Midwinter bald eagle surveys have been conducted nationally since the 1980's. The surveys have been conducted under the oversight of several federal agencies including the Bureau of Land Management (1992), National Biological Survey (1993-1996), U.S. Geological Survey (U.S.G.S.; 1997-2007), and most recently U.S. Army Corps of Engineers (U.S.A.C.E.; 2008 to present) (Eakle et al. 2015).

As part of this national effort, the state of Idaho has 78 routes, 4 of which are on the Nez Perce and Clearwater NFs. Since 1986 to 2010, the trend of the bald eagle winter population in the state of Idaho has increased by 1.2% (Eakle et al. 2015). Data for the NPNF and the Clearwater NF is available for 2005, 2011, and 2012. Table 2 lists the results of the survey for routes on the Forests for 2005, 2011, and 2012. The 2005 results were included in the calculation of statewide population trend from 1986-2010. Population trend for 2011 and 2012 has not yet been calculated. Note: the Little Salmon River route, which goes from the Salmon River to Hazard Creek, is on an adjacent sub basin not within the Forests.

Table 2: Number of bald eagles detected by survey route

	Total Bald Eagles Counted 2005	Adult Bald Eagles Counted 2005	Immature Bald Eagles Counted 2005
White Bird Creek-Vinegar Creek	4	4	0
Farrens Creek-Red River	2	2	0
Middle Fork Clearwater,	4	3	1

Clear Creek -Selway			

	Total Bald Eagles Counted 2011	Adult Bald Eagles Counted 2011	Immature Bald Eagles Counted 2011
White Bird Creek-Vinegar Creek	15	13	2
Farrens Creek –Red River	5	5	0
Middle Fork Clearwater, Clear Creek -Selway	24	14	10
Lochsa River, Lowell – Powell RS	1	1	0
Little Salmon River	1	1	0

	Total Bald Eagles Counted 2012	Adult Bald Eagles Counted 2012	Immature Bald Eagles Counted 2012
White Bird Creek-Vinegar Creek	12	9	3
Farrens Creek –Red River	6	6	0
Middle Fork Clearwater, Clear Creek -Selway	10	8	2
Lochsa River, Lowell – Powell RS	1	1	0
Little Salmon River	2	1	1

In addition, IDFG monitored bald eagle nests throughout the state in 2004, 2005, and 2006. Bald eagle recovery in Idaho is assessed in terms of 10 management zones as outlined in the Pacific Bald Eagle Recovery Plan (U.S. Fish and Wildlife Service 1986). Some management zones are shared with surrounding states. The IDFG report summarizes results on the Idaho portions of those zones. For 2005 and 2006, the number of known active bald eagle nests in Idaho increased each year (IDFG 2006, 2006a). The NPNF is within zone 8 and 15, which exceeded recovery goals both years.

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Peregrine Falcon

The Nez Perce National Forest Plan (1987) lists the peregrine falcon as endangered, and a Management Indicator Species. On 25 August 1999, the U.S. Fish and Wildlife Service (USFWS) officially delisted the peregrine falcon, removing it from the list of Endangered Species (U.S. Fish and Wildlife Service 1999). The USFWS recommended population monitoring continues in 2003, 2006, 2009, 2012, and 2015.

As reported in the 2012 Idaho Peregrine Falcon Survey and Nest Monitoring Report from IDFG, Idaho currently has 51 known (either active or historical) peregrine falcon territories. Seven new territories were discovered between 2009 and 2012, in southern Idaho. Of the 51 known territories, 45 were monitored in 2012 and 26 (58%) were found to be occupied. Twenty pairs (78%) successfully produced 46 young for an average of 1.8 fledged young per occupied territory and 2.3 fledged young per successful pair. Twenty-six territories were also occupied in 2009, suggesting no net change in number of breeding pairs in the state. Demographics in 2012 rose slightly from those recorded in 2009, remaining well within the average for previous records. Success rates for the peregrine in 2012 were similar to other years since the turn of the century.

Statewide pair distribution for monitoring is as follows: 2 pairs are monitored in northern Idaho; 3 pairs in western Idaho; 12 pairs in central Idaho; and 9 pairs in eastern Idaho. The Salmon River sub basin is the only area of the Forest with known nesting peregrines. In 2012, the Lucile territory was unoccupied, and the last known fledgling of young was in 2008. Two young were fledged in 2005, 0 in 2006, 2 in 2007, and 2 in 2008. In 2009 fledgling production was unknown. The territory was not monitored in 2010 or 2011. The Shingle Creek territory had 0 fledgling production in 2005, and was unoccupied in 2006 through 2009. The territory was not monitored in 2010 and 2011 (IDFG 2012). The Shingle Creek territory was not monitored in 2012 because of difficulty accessing the site (J. Sauder, IDFG). The BBS (Sauer et al. 2014) lists the trends for peregrine falcon in Idaho to be slightly increasing from 1966 to 2011, and from 1966 to 2012. The trend estimate for 2005 to 2012 is increasing. However, the sample size for peregrines in these surveys is small, so these results are not necessarily conclusive.

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Moose

Moose populations in Idaho have expanded their range and numbers over the past few decades, moving westward into Washington and northeastern Oregon, and southward into Utah (IDFG 2012).

Moose in the IDFG Clearwater Region, which encompasses the Forest, are usually counted incidental to elk surveys. Many moose are not counted because elk surveys are seldom flown at elevation where moose normally winter. In addition, detectability of moose is poor because moose tend to prefer dense subalpine fir plant associations for winter habitat where they are less conspicuous to aerial observation. As a result, no comparative population data have been regularly collected. IDFG uses mandatory harvest reports and reported non-hunting mortalities to provide limited insight into moose population status and trends. Harvest levels, hunter success, and hunter days expended are determined from mandatory harvest reports. Hunter success rates and/or antler spread reflect moose population trends.

Harvest records and hunter reports indicate however, that moose populations in central Idaho Wilderness and other areas of the Clearwater Region continue to decline (IDFG 2013). Moose populations large enough to support hunts are found in most of the Clearwater Region except GMUs 11, 11A, 13, and 18 (IDFG 2013). Moose populations are in decline from the Lochsa River south, and especially in the Selway River and South Fork Clearwater drainages (GMUs 15, 16A,17,19,and 20). Hunting permits in these areas have been reduced. However, the moose populations on Forest that are adapted to early seral plant communities (except in winter), seem to be expanding. The Clearwater Region 2012 cumulative hunter success rate of 48% was lower than the previous 5-year (2007-2011) average of 51% (IDFG 2013). In 2011, the cumulative success rate of 51% was lower than the previous 5-year (2006-2010) average of 57% (IDFG 2012), and the 2010 cumulative success rate of 53% was lower than the previous 5-year (2006-2010) average of 57% (IDFG 2011). The Clearwater Region cumulative success rate for 2009, 2008, and 2007 were slightly lower than the previous 5 year averages (IDFG 2010, 2009, 2008), and the 2006 and 2005 cumulative success rates were slightly higher than the previous 5 year averages (IDFG 2007, 2006).

Effects of the recent expansion of wolves on moose populations within the region are as yet undetermined. Research began in 2008 to monitor moose in GMU 10 to determine mortality rates and causes of death in the presence of wolves. This work is being done in conjunction with the ongoing wolf-elk interaction research in the Lolo Zone. Radio collars were placed on yearling or adult moose in the winter of 2008-2009, 2010, 2011, and 2012. While results are very preliminary, to date, wolves have not proven to be a significant cause of mortality on radio-collared adult moose. However, if early trends in wolf-caused calf mortality continue, calf survival and recruitment could be a serious issue (IDFG 2013). Harvest levels, hunter success, hunter days expended, and non-hunter mortality, all of which reflect population levels, can be found in the yearly Statewide Moose Progress Reports. These reports can be found at fishandgame.idaho.gov.

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Bighorn Sheep

In Idaho, bighorn sheep exist in both small isolated populations and in interconnected metapopulations. For management purposes, the IDFG has divided these populations and metapopulations into 22 Population Management Units (PMUs). Rocky Mountain bighorn sheep occur in 16 PMUs in central and southeastern Idaho. The largest native populations of Rocky Mountain bighorn sheep are in the Salmon River drainage, largely within the Forest.

The Salmon River population is genetically unique, because it is a native population that has never been supplemented. The range of this herd extends from Riggins upstream on the north face of the canyon. The primary population occurs in the area across the river from the mouth of the South Fork Salmon. An ongoing study to determine the distribution and movement patterns of the population is an interagency effort that began in 2007.

The frequency of surveys by IDFG varies from annually to once every 5 years. Most surveys are conducted during surveys for other species (deer or elk), which is cost effective, but likely reduces the quality of the surveys for both species (IDFG 2010). Four bighorn sheep PMUs contain a total of approximately 600 bighorn sheep on lands managed partially by the Forest; these include the Lower Salmon, Lower Panther-Main Salmon, Selway, and Hells Canyon PMUs (IDFG 2011).

Over 400 bighorn sheep occur along the Salmon River in areas managed by the Forest (IDFG 2010, IDFG 2013); these populations are connected to the Middle Fork Salmon PMU to the south, one of Idaho's largest bighorn sheep populations. A small population of at least 26 sheep is located on the Forest in the Upper Selway River; this population is contiguous with the West Fork Bitterroot, Montana bighorn sheep

population where 120 sheep were observed in the most recent survey (MDFWP 2010). Approximately 117 bighorn sheep occur west of the Forest in Hells Canyon PMU (IDFG 2013); these are connected to bighorn sheep populations across the Snake River in Oregon and Washington.

All 4 bighorn populations on the Forest are currently stable to declining (IDFG 2010, IDFG 2013).

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American Marten

Marten populations are well documented throughout the Forest. Marten population densities and trends are difficult to evaluate: long term data sets are rare, and populations often fluctuate, in large part due to variable trapping pressure. IDFG manages marten populations primarily using licensing, harvest seasons, and harvest limits. Mandatory harvest reports include Catch-Per-Unit-Effort, which measures the harvest per unit of time and is useful in predicting population trends. Statewide trends for Catch-Per-Unit-Effort from 2002 to 2012 have steadily declined, from 4.14 to 2.15 (IDFG 2014).

During winter 2002-2003, the IDFG initiated a pilot study for a statewide monitoring effort to collect basic information on forest carnivore occurrence, distribution, and persistence, using snow track surveys. The surveys were performed throughout the state during the winter of 2003-2004, 2004-2005, and 2005-2006, with variable effort dependent on snow conditions. In the Clearwater Region, multiple marten were detected each year (IDFG 2006).

Marten have been detected on the NPNF during snow track surveys completed in 2007 (Ulizio et al. 2007) and 2009 using protocol developed by Squires et al. (2004). Hair snare surveys (5 transects) that were completed during summer and fall of 2008 on the Forest following the protocol established by McKelvey et al. (1999) (Bonn 2008), also detected marten.

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Grizzly Bear

The grizzly bear currently occurs in western Canada, Alaska, extreme northern Washington, Idaho, Montana, and Wyoming. Within Idaho, there are 2 distinct populations, one in the north and another in the southeast. The northern population occurs in the Selkirk and Cabinet Mountains. The population in southeastern Idaho is centered in the greater Yellowstone Ecosystem. Both Idaho populations of grizzly bear are slowly increasing (IDFG 2005).

There is potential habitat for grizzly bear on the Forest. Officially, the USFWS does not consider any portion of the Forest to be permanently occupied by grizzly bears at this time, and there has been no evidence of a population.

In the 5 year status review by the U.S. Fish and Wildlife Service dated August 2011, it states on page 31: ***Bitterroot Ecosystem***. Although one male grizzly bear was killed within the Bitterroot Experimental Population Area in 2007, we have yet to document a population or any female bears within the BE. Because we have not documented a population or any female bears in the BE, we view the BE as currently unoccupied as per the definition of a population of grizzly bears in the Bitterroot EIS (FWS 2000).

The 5 year review also states that the estimated grizzly bear population size of the Bitterroot recovery zone is 0. Following the 2007 detection, the Bitterroot Ecosystem was systematically surveyed for grizzly bears during 2008 and 2009 using barbed wire DNA hair corrals and cameras. No grizzly bears were detected in the study area during the sampling period (Servheen and Shoemaker 2010).

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Gray Wolf

On May 5, 2011, the Fish and Wildlife Service is removed gray wolves in a portion of the Northern Rocky Mountain Distinct Population Segment (DPS) encompassing Idaho, Montana and parts of Oregon, Washington and Utah from the Federal List of Endangered and Threatened Wildlife (USFWS 2011). Post delisting monitoring requires each delisted state to submit an annual report to the U.S. Fish and Wildlife Service (USFWS et al. 2012).

IDFG currently oversees management of wolves in Idaho and coordinates among agencies to fulfill obligations under the revised 10(j) rule, Endangered Species Act, and 2008-2012 Idaho Wolf Population Management Plan. The Idaho wolf population has continued to expand in size and distribution since initial reintroductions in 1995, reaching Endangered Species Act recovery goals by the end of 2002 (IDFG and Nez Perce Tribe 2013). Wolf monitoring and management activities have been reported by Wolf Management Zones (WMZs) since 2008. Three WMZs, each of which includes several GMUs are partially on the Forest: Dworshak/Elk City, Palouse/Hells Canyon, and Selway.

The 2012 Idaho Wolf Monitoring Progress Report (IDFG 2013) estimated the number of wolves in Idaho at year-end, 1995-2012. Annual numbers were based on best information available and were retroactively updated as new information was obtained. The estimated number of wolves in Idaho from 2005 to 2012 are listed in Table 2 (IDFG 2013).

Table 2: Estimated Number of wolves in Idaho, 2005-2012.

Year	2005	2006	2007	2008	2009	2010	2011	2012
No. of Wolves	518	673	764	849	856	777	768	683

IDFG manages the number of wolves through harvest and control (agency removal and legal take). Statewide progress reports are available at fishandgame.idaho.gov and include a listing of population and pack numbers by Wolf Management Zone from 2008 to 2012.

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Fisher

Fisher populations declined significantly in the early 1900s. They were considered extinct or extremely rare in Idaho by the 1950s.The decline is largely attributed to habitat loss through settlement and logging, over-trapping, and predator poisoning, and the extensive fires that burned in the Bitterroot Mountains between 1910 and 1934 (Jones 1991). Western populations remain at low levels.

While there is not an estimate of population trend of fishers in the region, there have been several fisher studies conducted in Idaho and Montana, on or adjacent to the NPNF. Between 2002 and 2006 fishers were studied in the Clearwater sub-basin and eastern slope of the Bitterroot-Selway Ecosystem in Idaho and Montana, using radio telemetry locations from collared fishers to document habitat use (Schwartz et al. 2013).

In 2006, researchers at the Rocky Mountain Research Station finalized a protocol for systematically surveying for fishers in the Northern Rockies, using a 5 x 5 mile grid as the sampling unit, and placing hair snares within probable habitat to non-invasively collect DNA for genetic analyses (Schwartz et al. 2006). Since 2004, wildlife biologists have been utilizing hair snares to detect fishers, with the goal of delineating the geographic range of the fisher in the Northern Rocky Mountains and detecting all populations and their boundaries. Cumulatively, 4,813 snares have been deployed in the Northern Rockies. Fishers have been detected in 222 of those snares (a 5% detection rate, overall) (Lewis and Hahn 2012). Results of these hair snare efforts have greatly helped to refine a distribution map for fishers in the Northern Rockies. In general, fishers are distributed throughout north and north-central Idaho, and in Montana west of the Continental Divide (Lewis and Hahn 2012).

The IDFG Clearwater Region also studied fisher ecology. From 2006-2010, the Clearwater Region placed 33 Argos telemetry collars on 26 fishers. Data collected from the fishers constitute the single largest dataset to date on movements and habitat use of fishers in the Northern Rocky Mountains (Sauder and Rachlow 2014, 2015). IDFG is also collaborating with the Rocky Mountain Research Station to explore how fisher genetics are influenced by landscape pattern (IDFG 2013).

In addition, Fisher were detected in the Clearwater Region during the statewide monitoring effort winter snow track survey competed by IDFG from 2003 to 2006 (IDFG 2006).

Fisher were detected on the NPNF during snow track surveys completed in 2007 (Ulizio et al. 2007) and 2009. Hair snare surveys (5 transects) that were completed during summer and fall of 2008 on the Forest following the protocol established by McKelvey et al. (1999) (Bonn 2008), also detected fisher.

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Canada Lynx

The U.S. Fish and Wildlife Service (FWS) listed Canada lynx as a threatened species under the Endangered Species Act (ESA) in March 2000 (USFWS 2000). While lynx have occasionally been sited on the Forest, currently, due to the infrequent nature of lynx observations, no evidence exists of a resident lynx population or reproduction on the Nez Perce National Forest.

Snow track surveys in 2007 (Ulizio et al. 2007) and again in 2013 (Stone et al. 2013) on the Nez Perce National Forest, using protocol developed by Squires et al. (2004 and 2012), did not detect lynx. Much of the surveyed area appears to be suitable habitat that supports snowshoe hares (*Lepus americanus*); and the lack of detections suggests that lynx are rare or infrequent to the Nez Perce National Forest. Hair snare surveys (5 transects) during summer and fall of 2008 on the Nez Perce National Forest following the protocol established by McKelvey et al. (1999) also did not detect lynx (Bonn 2008). The surveys conducted in 2008 (hair snare) and 2009 (winter track surveys) were reduced in size and scope due to snow conditions, limited personnel and limited funding. No lynx were detected during any of these survey efforts (2007, 2008, 2009, or 2013).

During winter 2002-2003, the IDFG initiated a pilot study for a statewide monitoring effort to collect basic information on forest carnivore occurrence, distribution, and persistence, using snow track surveys. The surveys were performed throughout the state during the winter of 2003-2004, 2004-2005,

and 2005-2006, with variable effort dependent on snow conditions. In the Clearwater Region, no lynx were detected. (IDFG 2006).

Lynx are wide-ranging animals, and given the lynx-specific survey work conducted on the Nez Perce National Forest, presence of a population should be evident given the vast network of roads and trails. Historical sitings that have been confirmed may be the result of transient lynx moving through the Forest; but the infrequency of such reports suggests that lynx are incidental to the area (Ulizio et al. 2007.

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Northern Idaho Ground Squirrel

The Northern Idaho Ground Squirrel occurs in dry meadows bordered by ponderosa pine and Douglas-fir forests. The known occurrences in Idaho occur in Adams and Valley counties of western Idaho. The farthest north occurrence of Northern Idaho ground squirrel was found on the Payette National Forest at about 7,500 feet elevation at Lick Creek lookout. The FWS determined that similar habitat may continue to the north into the Rapid River drainage, including the most southwest portion of the Nez Perce National Forest. Although the habitat conditions necessary to support Northern Idaho ground squirrel do not appear to occur on the Forest, surveys were done on a series of grassy openings with the potential for habitat similar to the Lick Creek lookout in 2014. Northern Idaho ground squirrels were not found (Snyder and Whitted 2014). Based on this evidence and the fact that there have been no observations of this species in Idaho county, it has been determined that the species does not occur on the Forest.

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